Applicants: Heeres, et al.

Application No.: 10/537,037

Response to Final Office Action mailed November 17, 2009

Amendment filed February 18, 2010

Art Unit 1638
Page 2 of 8

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions of listing of claims, and listing of claims in the application.

1-9 (Cancelled)

- 10. (Currently amended) A method for breeding and selecting a potato <u>having increased</u> <u>protein content comprising</u>
 - (a) crossing a first parent potato plant having at least one *amf*-allele with a second parent potato plant-lacking an *amf*-allele to produce progeny;
 - (b) selecting and testing said progeny for the presence of at least one *amf*-allele and for protein content; wherein said testing for protein content is performed by determining protein content of tubers or root caps of said progeny; and
 - (c) selecting progeny having at least one *amf*-allele with a protein content higher than detected in said first parent or said second parent.
- 11. (Canceled)
- 12. (Currently amended) The method according to claim 10 further comprising selecting progeny homozygous for the *amf*-gene.
- 13. (Canceled)
- 14. (Canceled)
- 15. (Currently amended) The method according to claim 11 further comprising selecting progeny homozygous for the *amf*-gene.

Applicants: Heeres, et al. Application No.: 10/537,037

Art Unit 1638
Page 3 of 8

Response to Final Office Action mailed November 17, 2009
Amendment filed February 18, 2010

(Currently amended)comprising

A method for increasing protein storage in a potato

- (a) crossing a first parent potato plant having at least one *amf*-allele with a second parent potato plant lacking an *amf* allele to produce progeny:
- (b) selecting and testing said progeny for the presence of at least one *amf*-allele and for protein content; wherein said testing for protein content is performed by determining protein content of tubers or root caps of said progeny; and
- (c) selecting progeny having at least one *amf*-allele with a protein content higher than detected in said first parent or said second parent.
- 17. (Currently amended) The method according to claim 16, wherein said potato-progeny is homozygous for the *amf*-allele.
- 18. (Previously presented) The method according to claim 16, wherein the protein content of tubers of the selected progeny is at least 0.9% m/m.
- 19. (Previously presented) The method according to claim 18, wherein the protein content of tubers of the selected progeny is at least 1.2% m/m.
- 20. (Previously presented) The method according to claim 19, wherein the protein content of tubers of the selected progeny is at least 1.5% m/m.
- 21. (Previously presented) The method according to claim 16, wherein coagulating protein versus starch ratio of the selected progeny is at least 45 kg/ton.
- 22. (Previously presented) The method according to claim 21, wherein coagulating protein versus starch ratio of the selected progeny is at least 90 kg/ton.

Applicants: Heeres, et al. Application No.: 10/537,037

Art Unit 1638
Page 4 of 8

Response to Final Office Action mailed November 17, 2009
Amendment filed February 18, 2010

23. (Currently amended) A-method-The method according to claim 16, further comprising providing said selected progeny with a gene encoding a heterologous protein.

24. (Currently amended) A method The method according to claim 23, wherein the heterologous protein is selected from the group consisting of DHPS, PMC, vicilin, SCR1, Fcor2, TLRP, multicystatine, yZein, 10kDa Zein, 2S albumin, TIP13, PTGRP, PA1b, SE60 and PCP1.